

In the Claims:

Claims 1 to 20 (canceled).

1 21. (currently amended) Deployable structure with a modular
2 configuration consisting of at least one collapsible module
3 (91), which is bounded by joints (114, 115, 126, 121) of a
4 first joint set, which are corner joints of the module (91)
5 and lie in a first surface, and by joints (101, 102, 113,
6 108) of a second joint set, which are corner joints of the
7 module (91) and lie in a second surface, and with at least
8 one joint (109, 122) of a third joint set, which lies
9 outside of the first surface, whereby at least ~~a portion~~
10 some of the joints of the first and second joint set ~~is~~
11 ~~fixable in its~~ sets respectively have a fixable position
12 relative to one another, especially being connectable with
13 one another, by a guide mechanism, characterized in that,
14 one joint of the joints (109) of the third joint set is
15 connected with at least two of the joints (114, 115, 113,
16 121) selected from at least one of the first ~~and/or~~ and
17 second joint set ~~sets~~ by a tension-only non-rigid
18 connecting element (39, 41, 43, 45) that ~~transmits~~
19 essentially is adapted and able to transmit only tension
20 forces, and said one of the joints of the third joint set
21 is arranged below ~~the~~ a lowermost joint (114, 115, 121)
22 among the joints of the first joint set with which it ~~said~~
23 one of the joints of the third joint set is connected, and
24 characterized in that ~~the~~ forces arising upon loading of

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the structure by at least one of a useful working load
~~and/or the~~ and a self-weight load are transmittable as
tension forces away from ~~the joint~~ said one of the joints
(109) of the third joint set to the joints (114, 115, 113,
121) of at least one of the first ~~and/or~~ and second joint
~~set sets~~ via the tension-only non-rigid connecting element
(39, 41, 43, 45) that ~~transmits essentially~~ is adapted and
able to transmit only tension forces.

22. (previously presented) Structure according to claim 21,
characterized in that a joint (122) of the third joint set
is connected with at least one joint (101, 102, 113, 108)
of the second joint set by a connecting element (40, 42,
44, 46) that transmits tension and compression forces.

23. (currently amended) Structure according to claim 22,
characterized in that the at least two joints (114, 115,
113, 121) selected from at least one of the first ~~and/or~~
and second joint ~~set sets~~ and the at least one joint (101,
102, 113, 108) of the second joint set are connected with
a common joint of the third joint set.

24. (currently amended) Structure according to claim 22,
characterized in that the at least two joints (114, 115,
113, 121) selected from at least one of the first ~~and/or~~
and second joint ~~set sets~~ are connected with a first joint
(109) of the third joint set, and the at least one joint
(101, 102, 113, 108) of the second joint set is connected

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7 with a second joint (122) of the third joint set, and in
8 that the first joint (109) of the third joint set is
9 connected with the second joint (122) of the third joint
10 set by a connecting element (11) that transmits compression
11 and tension forces.

1 25. (currently amended) Structure according to claim 21,
2 characterized in that at least one of the first and/or
3 surface and the second surface is a respective plane.

1 26. (currently amended) Structure according to claim 21,
2 characterized in that all of the joints (101, 102, 113,
3 108) of the second joint set, and ~~the joint~~ said one of the
4 joints (109) of the third joint set, which is connected
5 with said at least two joints (114, 115, 113, 121) selected
6 from at least one of the first and/or and second joint set
7 sets by [[a]] the tension-only non-rigid connecting element
8 (39, 41, 43, 45), ~~that transmits essentially only tension~~
9 ~~forces,~~ lie in one plane.

1 27. (previously presented) Structure according to claim 22,
2 characterized in that all joints (114, 115, 126, 121) of
3 the first joint set and the joint (122) of the third joint
4 set, which is connected with at least one joint (101, 102,
5 113, 108) of the second joint set by a connecting element
6 (40, 42, 44, 46) that transmits tension and compression
7 forces, lie in one plane.

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1 28. (previously presented) Structure according to claim 21,
2 characterized in that the guide mechanism comprises guide
3 means, and in that at least one joint (114) of the first
4 joint set of a corner of the module (91) especially
5 arranged on the outer circumference of the structure is
6 connected by the guide means with a joint (102) of the
7 second joint set of a neighboring corner of the module (91)
8 especially arranged on the outer circumference of the
9 structure, and a joint (101) of the second joint set of the
10 corner is connected by the guide means with a joint (115)
11 of the first joint set of the neighboring corner.

1 29. (previously presented) Structure according to claim 28,
2 characterized in that the guide means comprise connecting
3 elements (15, 16) that transmit tension and compression
4 forces and that are crossed-over and pivotally connected
5 with one another.

1 30. (currently amended) Structure according to claim 29,
2 characterized in that the connecting elements (16, 32, 17,
3 20, 34, 21, 24, 36, 25, 28, 38, 29) that transmit tension
4 and compression forces and that lead to supports of the
5 support structure have a greater load capacity, especially
6 a larger diameter, than the remaining ones of the
7 connecting elements (15, 31, 18, 19, 33, 22, 23, 35, 26,
8 27, 37, 30) of the guide means.

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1 31. (previously presented) Structure according to claim 29,
2 characterized in that at least a portion of the connecting
3 elements (15, 16; 17, 18; up to 37, 38), which are
4 pair-wise crossed-over and pivotally connected with one
5 another and which transmit tension and compression forces,
6 are connected with one another offset from their center in
7 the longitudinal direction.

1 32. (previously presented) Structure according to claim 21,
2 characterized in that multiple modules (91, 92, 93, 94) are
3 arranged next to one another, and in that neighboring
4 modules comprise common joints.

1 33. (previously presented) Structure according to claim 21,
2 characterized in that the expansion of the module (91) or
3 the structure (90) is adjustable by an operating
4 arrangement.

1 34. (previously presented) Structure according to claim 33,
2 characterized in that the operating arrangement comprises
3 expansion and retraction means, especially an expansion
4 cable and a retraction cable, which are guided in the
5 respective joints over deflection means and are preferably
6 fixably operable on a common joint (101).

1 35. (previously presented) Structure according to claim 34,
2 characterized in that the expansion cable (1) is guided in
3 the respective joints over deflection means, especially

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4 deflection rollers or deflection saddles, with at least two
5 different deflection radii.

1 36. (previously presented) Structure according to claim 34,
2 characterized in that the structure (90) can have a
3 pre-stress applied thereto by means of the operating
4 arrangement, and thereby the structure (90) takes on a
5 prescribable form in a loaded condition.

1 37. (currently amended) Structure according to claim 21,
2 characterized in that at least ~~a portion~~ some of the joints
3 ~~(114 to 121, 126)~~ selected from at least one of the first
4 joint set ~~(114 to 121, 126)~~, ~~and/or of the joints (101 to~~
5 ~~108, 113)~~ of the second joint set (101 to 108, 113), ~~and/or~~
6 ~~of the joints (109 to 112, 122 to 125)~~ of and the third
7 joint set (109 to 112, 122 to 125) are connectable by a
8 membrane in such a manner so that thereby an at least
9 partially closed outer surface of the first or second
10 surface is formed.

1 38. (previously presented) Structure according to claim 21,
2 characterized in that at least a portion of the joints (114
3 to 121, 126) of the first joint set and at least a portion
4 of the joints (122 to 125) of the third joint set are
5 connectable with at least one, preferably triangular, panel
6 element (201 to 216) in such a manner so that thereby an at
7 least partially closed outer surface of the first surface
8 is formed.

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1 39. (previously presented) Structure according to claim 22,
2 characterized in that the connecting elements that transmit
3 tension and compression forces are articulately joined on
4 the respective joints and are especially formed by rods of
5 aluminum.

1 40. (currently amended) Structure according to claim 21,
2 characterized in that the tension-only non-rigid connecting
3 elements that are adapted and able to transmit essentially
4 only tension forces are attached, especially articulately
5 joined, on the respective joints, and at least partially
6 are formed by respectively two parallel extending wires or
7 cables of steel.

1 41. (new) Structure according to claim 21, wherein each said
2 tension-only non-rigid connecting element comprises at
3 least one wire or cable that is adapted and able to
4 transmit only tension forces.

1 42. (new) A deployable structure having a modular configuration
2 including at least one collapsible module, wherein each
3 said module comprises:

4 first joints located at first corners of said module
5 and lying in a first surface;

6 second joints located at second corners of said module
7 and lying in a second surface;

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8 a third joint that is distinct from said first and
9 second joints, and that is displaced from said first
10 surface on a side of said first surface facing toward said
11 second surface;

12 a guide mechanism that is connected to at least some
13 joints of said first and second joints so as to selectively
14 fix a position of said some joints relative to one another;
15 and

16 at least one non-rigid limp connecting element that is
17 adapted and able to transmit only tension forces, and that
18 connects said third joint respectively with at least two
19 selected joints among said first and second joints;

20 wherein said at least one non-rigid limp connecting
21 element is arranged and adapted so that load forces acting
22 on said structure are transmitted as purely tension forces
23 from said third joint to said at least two selected joints
24 via said at least one non-rigid limp connecting element.

1 43. (new) The deployable structure according to claim 42,
2 wherein said at least two selected joints include at least
3 one of said first joints and at least one of said second
4 joints.

1 44. (new) The deployable structure according to claim 42,
2 wherein said at least two selected joints include three of
3 said first joints and one of said second joints, and
4 wherein said at least one non-rigid limp connecting element
5 includes four said non-rigid limp connecting elements

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6 respectively connecting said third joint with said three
7 first joints and said one second joint.

1 45. (new) The deployable structure according to claim 42,
2 wherein each said non-rigid limp connecting element
3 comprises at least one wire or cable that is adapted and
4 able to transmit only tension forces.

1 46. (new) The deployable structure according to claim 42,
2 wherein each said non-rigid limp connecting element
3 comprises two wires or cables that are arranged and extend
4 parallel to one another, and that are adapted and able to
5 transmit only tension forces.

1 47. (new) The deployable structure according to claim 42,
2 further comprising:

3 a fourth joint that is distinct from said first,
4 second and third joints;
5 and

6 at least one connecting rod that is adapted and able
7 to transmit both tension forces and compression forces, and
8 that connects said fourth joint respectively with at least
9 one of said second joints.

1 48. (new) The deployable structure according to claim 47,
2 wherein each said non-rigid limp connecting element
3 comprises two wires or cables that are arranged and extend
4 parallel to one another, and that are adapted and able to

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5 transmit only tension forces, and wherein said connecting
6 rod respectively crosses and extends between said two wires
7 or cables of a respective one said non-rigid limp
8 connecting element.

[RESPONSE CONTINUES ON NEXT PAGE]

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